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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,295

09/25/2003

John Jay Wolfgang

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04/27/2006

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EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,295	Applicant(s) WOLFGANG ET AL.	
	Examiner Srirama Channavajjala	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-39 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-39 are presented for examination.

Drawings

2. The Drawings filed on 9/25/2003 are acceptable for examination purpose

Information Disclosure Statement

3. The information disclosure statement filed on 9/25/2003 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. ***Claim 1-39 are rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.***

The invention as claimed in claim 14 and interpreted in light of the specification particularly page 13-14 "article of manufacture defined as "computer readable media spec page 13, line 8-15. However "article of manufacture" specifically suggests "a transmission media, signals propagating through space.....[see spec lpage 13, line

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15-20], "signals propagating through space" being not a "article of manufacture", is not tangible, and therefore, claim 14 is directed to non-statutory subject matter

As to claims 1,14, 27 is directed to method and system for data synchronization: having steps "determining a first identifier for a portion of data at a first source; determining a second identifier forcomparing the first and second identifiers; and when the first and second identifiers.....data at the first source" which is a combination of hardware and software or software per say, both system and method performing a mathematical algorithm, formula, or calculation related to "data synchronization [claims 1,27], and as such the claimed invention is subject to the test of State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a ***"useful, concrete and tangible result."*** The **Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility** states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application.").

Claims 1,14,27 have the result of producing data synchronization, however the claims do not specify that the result neither stored nor output is displayed to a user or otherwise used in the real world , but ***does not output useful, concrete and tangible.***

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Thus the claimed result is not a “useful, concrete and tangible result.” The court in State Street noted that the claimed invention in Alappat constituted a practical application of an abstract idea because it produced a *useful, concrete and tangible result* the display of a smoothed heart beat to a system user. The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1451 (see the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II).

The examiner reviewed the specification but was unable to find a practical real-world use of the result (for example: claim 1, claim 14, and claim 27. furthermore, claims 6,19,32 are merely “generating the first identifier....generating the second identifier.....”do not produce **output “useful, concrete and tangible”**, similarly claims 7,9,20,22,33,35; claims 8-10,21-23,34-36 are also do not produce output **“useful, concrete and tangible”**. If the applicant is able to find one and inserts it into the claims provide the location the element[s] is found in the specification.

In the above analysis of claims 2-13,15-26,28-29, dependent claims 1,14,27 also rejected on that basis.

See for further information: <<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>>

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. ***Claims 1-2,6-15,19-28,32-39 are rejected under 35 U.S.C. 102(a) as being anticipated by Huang et al. [hereafter Huang], US Patent No. 6493727, published on Dec 10,2002.***

7. As to claim 1,14,27, Huang teaches a system which including 'data synchronization' [col 1, line 16-18, fig 1], data synchronization corresponds to Huang's fig 1;

'determining a first identifier for a portion of data at a first source' [col 5, line 35-43], Huang specifically teaches first and second databases element 176a, and 176b and also suggests sequence identifier X associated with message or data providing information to both first and second database as detailed in col 5, line 35-43;

'determining a second identifier for a portion of corresponding data at a second source' [col 9, line 40-47], Huang teaches second database and associated sequence identifier as detailed in col 9, line 40-47;

'comparing the first and second identifiers' [col 9, line 53-57], Huang specifically teaches first database with content "A" associated with sequence identifier fig 8,

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element 403, and second database with content "A" associated with sequence identifier as detailed in col 9, line 53-57 are compared ;

'when the first and second identifiers do not match, replacing the portion of corresponding data at the second source with the portion of data at the first source' [col 9, line 65-67, col 10, line 4-10], Huang specifically teaches when first database content updated or altered, the result replaces in the second database, i.e. when the original database changes are noted, data is first and second database are replaced during synchronization as detailed in col 10, line 1-10.

8. As to claim 2,15,28, Huang disclosed 'when the first and second identifiers do match, determining that the portion of data at the first source and the portion of corresponding data at the second source are identical [col 6, line 6-15, fig 3], Huang specifically teaches first and second databases in the primary and secondary devices are identical and they both include the same content "A" as detailed in col 6, line 10-12.

9. As to claims 6,19,32, Huang disclosed 'generating the first identifier by performing a first function on the portion of data at the first source' [col 5, line 49-50];

'generating the second identifier by performing the first function on the portion of corresponding data at the second source' [col 5, line 49-62].

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10. As to claims 7,9, 20,22,33, 35, Huang disclosed 'wherein determining the first identifier further comprising: generating a first value by performing a first function on the portion of data at the first source' [col 6, line 8-14];

'generating a second value by performing a second function on the portion of data at the first source' col 6, line 16-21];

'generating the first identifier by combining the first value and the second value' [col 6, line 34-39].

11. As to claims 8,21,34, Huang disclosed 'generating a third value by performing the first function on the portion of corresponding data at the second source' [col 10, line 11-13];

'generating a fourth value by performing the second function on the portion of corresponding data at the second source' [col 10, line 18-24];

'generating the second identifier by combining the third value and the fourth value' [col 10, line 25-34].

12. As to claims 10,23,36, Huang disclosed 'generating a second value by performing the first function on the portion of corresponding data at the second source' [col 6, line 55-61];

'generating the second identifier by performing the second function on the second value' [col 6, line 66-67, col 7, line 1-5].

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13. As to claims 11,24,37, Huang disclosed 'first identifier for the portion of data at the first source is determined when the portion of data at the first source is updated' [col 5, line 49-53]; 'the second identifier for the portion of corresponding data at the second source is determined when the portion of corresponding data at the second source is updated' [col 5, line 49-65].

14. As to claims 12,25,38, Huang disclosed 'first identifier and the second identifier are determined when a determination is made that it is time to synchronize data at the first source and the second source' [col 7, line 31-39].

15. As to claims 13,26,39, Huang disclosed 'first identifier and the second identifier are determined periodically' [col 7, line 24-28].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 3-5, 16-18,29-31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. [hereafter Huang], US Patent No. 6493727, published on Dec 10,2002 as applied to claims 1,14,27 above, and further in view of Salkewicz et al. [hereafter Salkewicz], US Patent No. 5970502 published on Oct 19,1999.

17. As to claim 3, 16,29, Huang teaches 'first and second identifiers' [col 9, line 42-43, line 65-66], Huang specifically teaches sequence identifiers for example fig 8, element 403 uniquely identifies the database element 406a. It is however, noted that Huang does not specifically teach, "hash keys". On the other hand, Salkewicz disclosed 'has key' [see fig 9A-9C, col 10, line 1-6].

It would have been obvious to one of the ordinary skill in the art at the time of Applicant's invention to incorporate the teachings of Salkewicz et al. into synchronizing database in a primary device and a secondary device that are derived from a common database of Huang et al. because both Huang and Salkewicz are directed to "database synchronization", more specifically, Huang is directed to merging the first and second database into a common database in the primary and secondary devices as detailed in

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col 1, line 45-57], while Salkewicz is directed to "synchronizing multiple copies of a database", more specifically synchronizing first database with a second database in which the first database contains a plurality of database records [col 2, line 39-42], and both are same field of "synchronizing the databases" endeavor.

one of the ordinary skill in the art at the time of Applicant's invention to incorporate the teachings of Salkewicz et al. into synchronizing database in a primary device and a secondary device that are derived from a common database of Huang et al. because that would have allowed users of Huang to copy each segment of the data records, and records contained in the segments are "released" for modification" [Salkewicz: col 7, line 20-24], bringing the advantages of restricting access to only a very small number of records for a short period of time [Salkewicz: col 7, line 24-28], further it is noted that segment size corresponds to hash bucket such that each hash bucket contains several segments, thus bringing the overall advantages of segments are synchronized, transmitted, sequentially between first and second database so that bi-directional updating of two or more databases [Salkewicz: col 2, line 44-50].

18. As to claim 4, 17,30, Salkewicz disclosed 'generating the hash keys using a single hash key function' [col 10, line 5-7].

19. As to claim 5, 18,31, Salkewicz disclosed 'generating the hash keys using multiple hash key functions' [col 10, line 17-20].

Conclusion

The prior art made of record

- a. US Pub.No. . 6493727
- b. US Pub.No. . 5970502

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

sc
Patent Examiner.
April 7, 2006


SRIRAMA CHANNAVAJJALA
PRIMARY EXAMINER